

Title (en)

Fluoropolymers and membranes prepared from such polymers, in particular for fuel cells and method for synthesizing such polymers

Title (de)

Fluoropolymere und daraus hergestellte Membranen, insbesondere für Brennstoffzellen und Verfahren zur Synthese derartiger Polymere

Title (fr)

Polymères fluorés et membranes préparées à partir de tels polymères, notamment pour piles à combustible et procédé de synthèse de tels polymères

Publication

EP 1930347 B1 20090401 (FR)

Application

EP 08103003 A 20051014

Priority

- EP 05810574 A 20051014
- FR 0411081 A 20041019

Abstract (en)

[origin: WO2006042994A2] The invention concerns fluoropolymers comprising at least one repeat unit of formula (I), wherein: groups X and Y, identical or different, represent H or F; group Z represents F or a perfluorinated alkyl group; group W represents CH₂O or CF₂O or CO₂; group Ar represents a divalent group including at least one optionally substituted carbon-containing aromatic cycle; group Q represents a single bond, (CF₂)_n with 1 = n = 10, or - C₂F₄OC₂F₄; group G represents a cation exchanging group, preferably selected among SO₂SUB>R₁, with R₁ representing OH, F or Cl; or P(=O) (OR₂)₂ with R₂ representing H or an optionally substituted alkyl group, or CO₂H and having ion exchange capacity not less than 0.5 meq/g polymer. The invention also concerns the method for synthesizing said polymers, the membranes obtained from said polymers and fuel cell devices comprising such membranes.

IPC 8 full level

C08F 8/00 (2006.01); **C08F 14/18** (2006.01)

CPC (source: EP US)

B01D 71/32 (2013.01 - EP US); **B01D 71/82** (2013.01 - EP US); **C08F 14/18** (2013.01 - EP US); **H01M 8/1023** (2013.01 - EP US); **H01M 8/1039** (2013.01 - EP US); **H01M 8/1072** (2013.01 - EP US); **H01M 2300/0082** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2876694 A1 20060421; **FR 2876694 B1 20061208**; AT E400589 T1 20080715; AT E427324 T1 20090415; DE 602005008091 D1 20080821; DE 602005013703 D1 20090514; EP 1805227 A2 20070711; EP 1805227 B1 20080709; EP 1930347 A1 20080611; EP 1930347 B1 20090401; ES 2310370 T3 20090101; ES 2323335 T3 20090713; JP 2008517134 A 20080522; JP 4926065 B2 20120509; US 2008051479 A1 20080228; US 7615600 B2 20091110; WO 2006042994 A2 20060427; WO 2006042994 A3 20060803

DOCDB simple family (application)

FR 0411081 A 20041019; AT 05810574 T 20051014; AT 08103003 T 20051014; DE 602005008091 T 20051014; DE 602005013703 T 20051014; EP 05810574 A 20051014; EP 08103003 A 20051014; ES 05810574 T 20051014; ES 08103003 T 20051014; FR 2005050857 W 20051014; JP 2007537348 A 20051014; US 57701105 A 20051014